

In The Claims:

Claim 1. (original) A sealing valve for a medical apparatus, made of an elastic material and having a valve hole at a center thereof, characterized in that the valve hole of the sealing valve is opened by pressing and deforming the sealing valve by means of a tip end of a male connection port, without allowing the tip end of the male connection port to run through the sealing valve.

Claims 2-3 (canceled)

Claim 4. (original) The sealing valve for a medical apparatus according to claim 1, wherein the valve is made of an elastic material, and is provided with an approximately semispherical portion having the valve hole at a top thereof, and the valve hole is opened by pressing and deforming the semispherical portion of the sealing valve by means of the tip end of the male connection port without allowing the tip end of the male connection port to run through the valve hole.

Claim 5. (original) The sealing valve for a medical apparatus according to claim 1, wherein the valve is made of an elastic material, and has a cylindrical shape with a ceiling portion being an arched convex face that protrudes downward, the valve hole is provided at the ceiling portion, and the valve hole is opened by pressing and deforming the ceiling face without allowing the tip end of the male connection port to run through the valve hole.

Claim 6. (currently amended) The sealing valve for a medical apparatus according to [[any one of claims 1 to 3]]claim 1, having either or both of a ring portion and a concave portion in a surrounding area of the valve hole.

Claim 7. (currently amended) A connection port wherein
[[the]] a sealing valve for a medical apparatus [[according to any one of claims 1 to 3]] is mounted in an opening portion of the medical apparatus, in which the sealing valve is made of an elastic material and having a valve hole at a center thereof, characterized in that the valve hole of the sealing valve is opened by pressing and deforming the sealing valve by

means of a tip end of a male connection port, without allowing the tip end of the male connection port to run through the sealing valve,

the connection port has a sleeve portion provided to surround the opening portion of the medical apparatus, the sleeve portion being arranged to press the sealing valve for the medical apparatus so as to press and hermetically seal the valve hole of the sealing valve for the medical apparatus, the sleeve portion including a screwing piece on its outer circumferential surface, the sleeve portion allowing a lock type syringe to be inserted into and screwed with, and

when the lock type syringe has been inserted into the sleeve portion, a tip end of the lock type syringe presses and deforms the sealing valve for the medical apparatus so as to open the valve hole of the sealing valve for the medical apparatus, without running through the sealing valve for the medical apparatus.

Claim 8. (original) The connection port according to claim 7, wherein

a level of an upper end of the sealing valve for the medical apparatus is substantially coincident with a position of an upper end of the sleeve portion, and a cushion portion is provided in a lower portion of the sealing valve for the medical apparatus, which is pressed and goes down when a male connection port is inserted into the sleeve portion, and brings the upper end of the sealing valve for the medical apparatus to a predetermined position inside the sleeve portion when the lock type syringe has been pulled out from the sleeve portion.

Claim 9. (original) The connection port according to claim 7, comprising the sleeve portion provided on its ceiling and a cap member, attached to the opening portion of the medical apparatus, for covering the sealing valve for the medical apparatus, the opening portion and the cap member including attachment portions that are to be overlapped in a vertical direction, each attachment portion having a ridge portion and a valley portion that become convex or concave in the vertical direction in such a manner that engagement of the ridge portions and the valley portions between the opening portion and the cap member prevents rotation of the cap member together with the lock type syringe.

Claim 10 (canceled)

Claim 11. (currently amended)

A mixed injection tube in which a sealing valve for a medical apparatus ~~[[according to any one of claims 1 to 3]]~~ is mounted to an opening portion of a main body of the mixed injection tube, wherein the sealing valve is made of an elastic material and having a valve hole at a center thereof, characterized in that the valve hole of the sealing valve is opened by pressing and deforming the sealing valve by means of a tip end of a male connection port, without allowing the tip end of the male connection port to run through the sealing valve,

the main body including connection ports at both ends to each of which an infusion tube is to be connected, and a channel having the opening portion at its center, a cap member with a sleeve portion provided on its ceiling being mounted to the opening portion of the main body, the mixed injection tube characterized in that

the mixed injection tube comprises: a protruding stria provided at a tip end on an outer circumferential surface of the sleeve portion, with which a female screw structure formed on an inner circumferential surface of a collar of a lock type syringe is to be screwed; and

a resistance application portion, provided in a middle part on the outer circumferential surface of the sleeve portion, for temporarily stopping and holding a lock type syringe inserted into the sleeve portion at an intermediate site of the sleeve portion while the valve hole of the sealing valve for the medical apparatus is closed,

during insertion of the lock type syringe into the sleeve portion, the lock type syringe is temporarily stopped at the intermediate site of the sleeve portion by the resistance application portion, and then, when a male connection port of the lock type syringe is inserted into the sleeve portion more deeply, a tip end of the male connection port presses and deforms the sealing valve for the medical apparatus, thereby opening the valve hole of the sealing valve.

Claim 12. (original) The mixed injection tube according to claim 11, wherein

the resistance application portion is a second protruding stria provided in the middle part on the outer circumferential surface of the sleeve portion, screwed with a double thread female screwing structure of the lock type syringe.

Claim 13. (currently amended) A connection tool for connecting to an infusion circuit including one medical infusion line as a main line, a plurality of other medical infusion lines, and a plurality of syringes, comprising: a main connection tube to be provided in a midway portion of a tube of the one medical infusion line; and a plurality of branch connection

tubes branching from a surrounding area of the main connection tube, wherein [[the]]a sealing valve for a medical apparatus [[according to any one of the claims 1 to 3]] is mounted in a top-end opening portion of each of the branch connection tubes, in which the sealing valve is made of an elastic material and having a valve hole at a center thereof, characterized in that the valve hole of the sealing valve is opened by pressing and deforming the sealing valve by means of a tip end of a male connection port, without allowing the tip end of the male connection port to run through the sealing valve.

Claim 14. (original) The connection tool for connecting to an infusion circuit according to claim 13, wherein the branch connection tube is provided with a linking portion for linking a tube of the other medical infusion line or the syringe thereto.

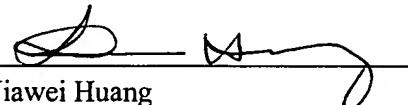
Claim 15. (currently amended) A connection system for an infusion circuit, in which [[the]]a connection tool for an infusion circuit [[according to claim 13]] is attached to one medical infusion line, in which the connection tool includes one medical infusion line as a main line, a plurality of other medical infusion lines, and a plurality of syringes, and the connection tool comprises: a main connection tube to be provided in a midway portion of a tube of the one medical infusion line; and a plurality of branch connection tubes branching from a surrounding area of the main connection tube, wherein a sealing valve for a medical apparatus is mounted in a top-end opening portion of each of the branch connection tubes, in which the sealing valve is made of an elastic material and having a valve hole at a center thereof, characterized in that the valve hole of the sealing valve is opened by pressing and deforming the sealing valve by means of a tip end of a male connection port, without allowing the tip end of the male connection port to run through the sealing valve; and

the valve hole of the sealing valve for the medical apparatus mounted in each connection port of the connection tool is opened by pressing and deforming the sealing valve for the medical apparatus by means of a tube of the other medical infusion line or a tip end of a syringe, without insertion of the tube of the other medical infusion line or the syringe, to allow connection of the tube of the other medical infusion line or the syringe to the one medical infusion line.

No new matter has been added to the application by the amendments made to the specification, the drawings, and the claims. Entry of the amendments is requested.

Respectfully submitted,

Dated: 7/8/2005

By: 
Jiawei Huang
Registration No. 43,330

Correspondence Address:
J.C. PATENTS.
4 Venture, Suite 250
Irvine, California 92618
Tel: (949) 660-0761
Fax: (949) 660-0809